# BRUHAT BANGALORE MAHANAGARA PALIKE

## DASARAHALLI ZONE

**Name of work:Improvements of Asphalting at BHEL Mini Colony and Surrounding Area in Mallasandra Ward No. 13 Shettyhalli Sub Division**

| JOB NUMBER.: | | | | | | | SI-2 | Est. Amount = | 50.00 | Lakhs |
|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No | | Unit | No | Dimension L | Dimension B | Dimension D | Quantity | | Rate in Rs. | Amount in Rs. |
| 1 | Removing and resetting of footpath slab (Page No-265 Item no - 37.6 of KPWD SR 2016-17).. | | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | Sqm | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 2 | 105.00 | 0.90 | | 189.00 | | | |
| | 2nd Cross BHEL mini Colony | | 2 | 105.00 | 0.90 | | 189.00 | | | |
| | 3rd Cross BHEL mini Colony | | 2 | 105.00 | 0.90 | | 189.00 | | | |
| | 3rd Cross Road | | 2 | 81.00 | 0.90 | | 145.80 | | | |
| | BHEL Mini Colony main Road | | 2 | 200.00 | 0.90 | | 360.00 | | | |
| | 6th Cross Prashanth Nagar | | 2 | 185.00 | 0.90 | | 333.00 | | | |
| | Damaged Cover Slab 10% | | 2 | 78.10 | 0.90 | | 140.58 | | | |
| | | | | | | Total Qty | 1265.22 | | 132.50 | 167641.65 |
| 2 | KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No.-142 I.No-19.1 of KPWD S.R 2016-17) | | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | Cum | | | | | | | | |
| | **Desilting** | | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 2 | 105.00 | 0.60 | 0.35 | 44.10 | | | |
| | 2nd Cross BHEL mini Colony | | 2 | 105.00 | 0.60 | 0.35 | 44.10 | | | |
| | 3rd Cross BHEL mini Colony | | 2 | 100.00 | 0.60 | 0.35 | 42.00 | | | |
| | 3rd Cross Road | | 2 | 81.00 | 0.60 | 0.35 | 34.02 | | | |
| | BHEL Mini Colony main Road | | 2 | 200.00 | 0.60 | 0.35 | 84.00 | | | |
| | 6th Cross Prashanth Nagar | | 2 | 185.00 | 0.60 | 0.30 | 66.60 | | | |
| | | | | | | Total Qty | 314.82 | | 186.92 | 58846.15 |
| 3 | Providing and laying pre-cast drain cover slab of 100mm thickness in CM1:3 including cost of all materials,labour,curing, transportation, loading, unloading etc.,as per doiirections of the Enineer-in-charge. {Data Rate sheet enclosed} | | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | Sqm | | | | | | | | |
| | Damaged Covering Slab 10% of total length | | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 2 | 10.50 | 0.90 | | 18.90 | | | |
| | 2nd Cross BHEL mini Colony | | 2 | 10.50 | 0.90 | | 18.90 | | | |
| | 3rd Cross BHEL mini Colony | | 2 | 10.00 | 0.90 | | 18.00 | | | |
| | 3rd Cross Road | | 2 | 8.10 | 0.90 | | 14.58 | | | |
| | BHEL Mini Colony main Road | | 2 | 20.00 | 0.90 | | 36.00 | | | |
| | 6th Cross Prashanth Nagar | | 2 | 18.50 | 0.90 | | 33.30 | | | |
| | | | | | | Total Qty | 139.68 | | 1957.00 | 273353.76 |
| 4 | Earth work in soil with hydraulic excavator of 0.9 cu.m. bucket capacity including cutting and loading in tippers, trimming bottom and side slopes. In accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications. (Page No,-143, I.No.-19.14 of KPWD S.R 2016-17). | | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | Cum | | | | | | | | |
| | **BC Road** | | | | | | | | | |
| | Pipe line Cutting | | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.70 | 73.50 | | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.70 | 73.50 | | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.70 | 73.50 | | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.00 | 0.70 | 56.70 | | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | 0.70 | 129.50 | | | |
| | Pot Holes | | 60 | 2.00 | 1.50 | 0.30 | 54.00 | | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | 0.30 | 24.00 | | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | 0.30 | 360.00 | | | |
| | | | | | | Total Qty | 844.70 | | 148.76 | 125657.57 |
| 5 | 0400 Stone dust / Grit (Page No,-II, Sl.No.-50 of KPWD S.R 2016-17). | | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | Cum | | | | | | | | |
| | **BC Road** | | | | | | | | | |
| | Pipe line Cutting | | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.4 | 42.00 | | | |

| Sl. No | | Unit | No | Dimension | | | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | L | B | D | | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | 0.4 | 74.00 | | |
| | | | | | | Total Qty | 232.40 | 848.00 | 197075.20 |
| 6 | KSRRB M400-6.1. Construction of granular sub-base of Grading II Material by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method (Page No,-155, I.No.-20.4.2 of KPWD S.R 2016-17) | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pot Holes | Cum | 60 | 2.00 | 1.50 | 0.15 | 27.00 | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | 0.15 | 12.00 | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | 0.15 | 180.00 | | |
| | | | | | | Total Qty | 219.00 | 1665.26 | 364691.94 |
| 7 | KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / ChapterPage no -149.Item.No 19.64 of KPWD S.R 2016-17) | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 3rd Cross BHEL mini Colony | Sqm | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.00 | | 81.00 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | | 185.00 | | |
| | Pot Holes | | 60 | 2.00 | 1.50 | | 180.00 | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | | 80.00 | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | | 1200.00 | | |
| | | | | | | Total Qty | 2041.00 | 5.30 | 10817.30 |
| 8 | KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap I basalt to wet mix macadam specifications including pre mixing the material with water at OMC mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (Page No,-158, I.No.-20.18 of KPWD S.R 2016-17). | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.18 | 18.90 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.18 | 18.90 | | |
| | 3rd Cross BHEL mini Colony | Cum | 1 | 105.00 | 1.00 | 0.18 | 18.90 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.00 | 0.18 | 14.58 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | 0.18 | 33.30 | | |
| | Pot Holes | | 60 | 2.00 | 1.50 | 0.18 | 32.40 | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | 0.18 | 14.40 | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | 0.18 | 216.00 | | |
| | | | | | | Total Qty | 367.38 | 1768.08 | 649557.23 |
| 9 | KSRRB M500-6. Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg I sqm using mechanical means complete as per specifications. MORTH Specification No. 502 (Page No,-161, I.No.-21.6 of KPWD S.R 2016-17). | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | | 105.00 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.00 | | 81.00 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | | 185.00 | | |
| | Pot Holes | Sqm | 60 | 2.00 | 1.50 | | 180.00 | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | | 80.00 | | |
| | Profile correction | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.60 | | 168.00 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | | 147.00 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | | 147.00 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.60 | | 129.60 | | |

| Sl. No | | Unit | No | Dimension L | B | D | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 10 | KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 (Page No:160, Item No:21.2 SR:2015-16) | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | Sqm | 1 | 105.00 | 1.60 | | 168.00 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | | 147.00 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | | 147.00 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.60 | | 129.60 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.50 | | 277.50 | | |
| | | | | | | **Total Qty** | **869.10** | **3.18** | **2763.74** |
| 11 | KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VGIO) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH (Page No,-160, I.No.-21.7 of KPWD S.R 2016-17). | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | Sqm | 1 | 105.00 | 5.50 | | 577.50 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 5.50 | | 577.50 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 5.50 | | 577.50 | | |
| | 3rd Cross Road | | 1 | 81.00 | 5.00 | | 405.00 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 6.50 | | 1202.50 | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | | 1200.00 | | |
| | | | | | | **Total Qty** | **4540.00** | **12.72** | **57748.80** |
| 12 | KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mixformula for base / binding course including loading of aggregates withF.E. loader, hot mixing of stone aggregates and bitumen in hot mixplant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer/ tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications.(Page No,-162, I.No.-21.11.6 of KPWD S.R 2016-17). | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Pipe line Cutting | | | | | | | | |
| | 1st Cross BHEL mini Colony | Cum | 1 | 105.00 | 1.00 | 0.05 | 5.25 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.05 | 5.25 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.00 | 0.05 | 5.25 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.00 | 0.05 | 4.05 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.00 | 0.05 | 9.25 | | |
| | Pot hole | | 60 | 2.00 | 1.50 | 0.05 | 9.00 | | |
| | Road Cutting | | 40 | 5.00 | 0.40 | 0.05 | 4.00 | | |
| | Profile correction | | | | | | | | |
| | 1st Cross BHEL mini Colony | | 1 | 105.00 | 1.60 | 0.05 | 8.40 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | 0.05 | 7.35 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 1.40 | 0.05 | 7.35 | | |
| | 3rd Cross Road | | 1 | 81.00 | 1.60 | 0.05 | 6.48 | | |
| | 6th Cross Prashanth Nagar | | 1 | 185.00 | 1.50 | 0.05 | 13.88 | | |
| | BHEL Mini Colony main Road | | 1 | 200.00 | 6.00 | 0.05 | 60.00 | | |
| | | | | | | **Total Qty** | **145.51** | **5730.36** | **833796.03** |
| 13 | KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4 % VG-30 Bitumen using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification (Page No,-165, I.No.-21.22.6 of KPWD S.R 2016-17). | | | | | | | | |
| | **BHEL Mini Colony and Surrounding Area Roads** | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | 1st Cross BHEL mini Colony | Cum | 1 | 105.00 | 5.50 | 0.04 | 23.10 | | |
| | 2nd Cross BHEL mini Colony | | 1 | 105.00 | 5.50 | 0.04 | 23.10 | | |
| | 3rd Cross BHEL mini Colony | | 1 | 105.00 | 5.50 | 0.04 | 23.10 | | |

ನಂ. CE/TS/466/17-18 ದಿನಾಂಕ : 06/02/2018

ರೂ. Rs. 50-00 Lakh only/-

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ತಾಂತ್ರಿಕ ಸಹಾಯಕರು

ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ.
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬೆಂಗಳೂರು.

| Sl. No | | Unit | No | Dimension L | Dimension B | Dimension D | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 14 | Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface - Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sq.m. area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC :35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. (Page No,-185, I.No.-24.15 of KPWD S.R 2016-17). | | | | | | | | |
| | **BC Road** | | | | | | | | |
| | Road Marking | Sqm | 2 | 781.00 | 0.15 | | 234.30 | | |
| | | | | | | **Total Qty** | **234.30** | **542.72** | **127159.30** |
| | | | | | | | | **Total Constrution cost** | **44,23,637.89** |
| | | | | | | | | **Design Report,Proof Checking & PMC Amount** | **88,472.76** |
| | | | | | | | | **KRDL Charges 11%** | **4,86,600.17** |
| | | | | | | | | **Sub Total** | **49,98,710.82** |
| | | | | | | | | **Miscellaneous & Rounding Off** | **1,289.18** |
| | | | | | | | | **Grand Total** | **50,00,000.00** |

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2016-17
4. The provisions made in the estimate are necessary and essential.

Consultants
For Sri Sai Consultants

Assistant Engineer
Ward No.13
BBMP - Bangalore

Assistant Executive Engineer
Shettyhalli Sub-Division
BBMP - Bangalore

Executive Engineer
Dasarahalli
BBMP - Bangalore

ಸಂ. ಕಇ/PD/666/17-18 ದಿನಾಂಕ: 5/2/18

ರೂ. Rs. 50,00 Lakhs Rupees Fifty Lakhs Only

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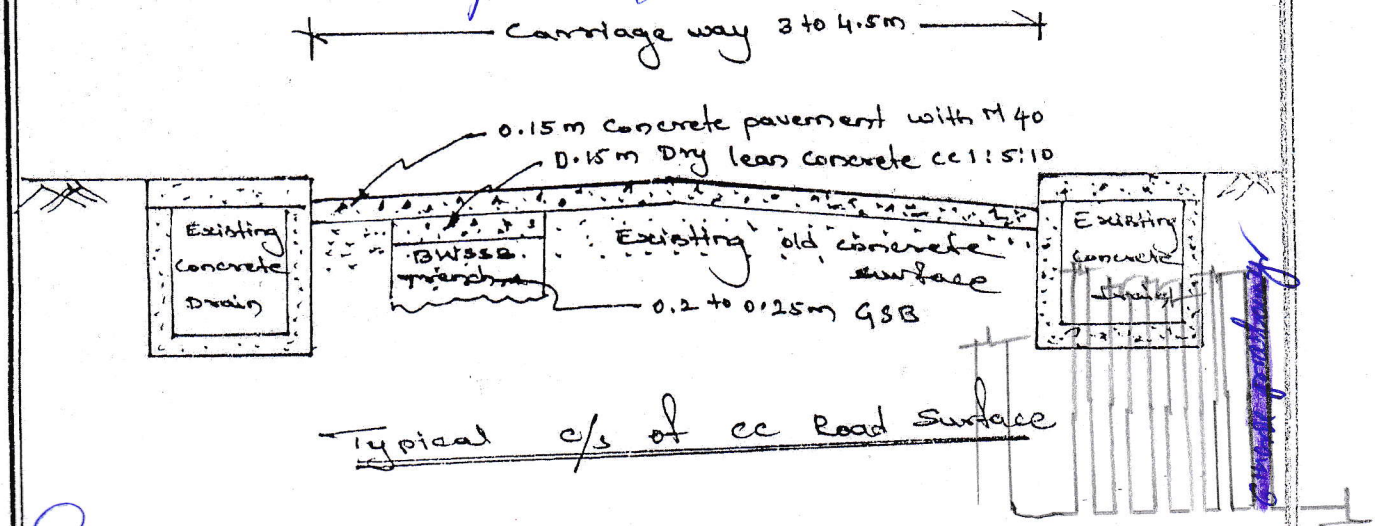
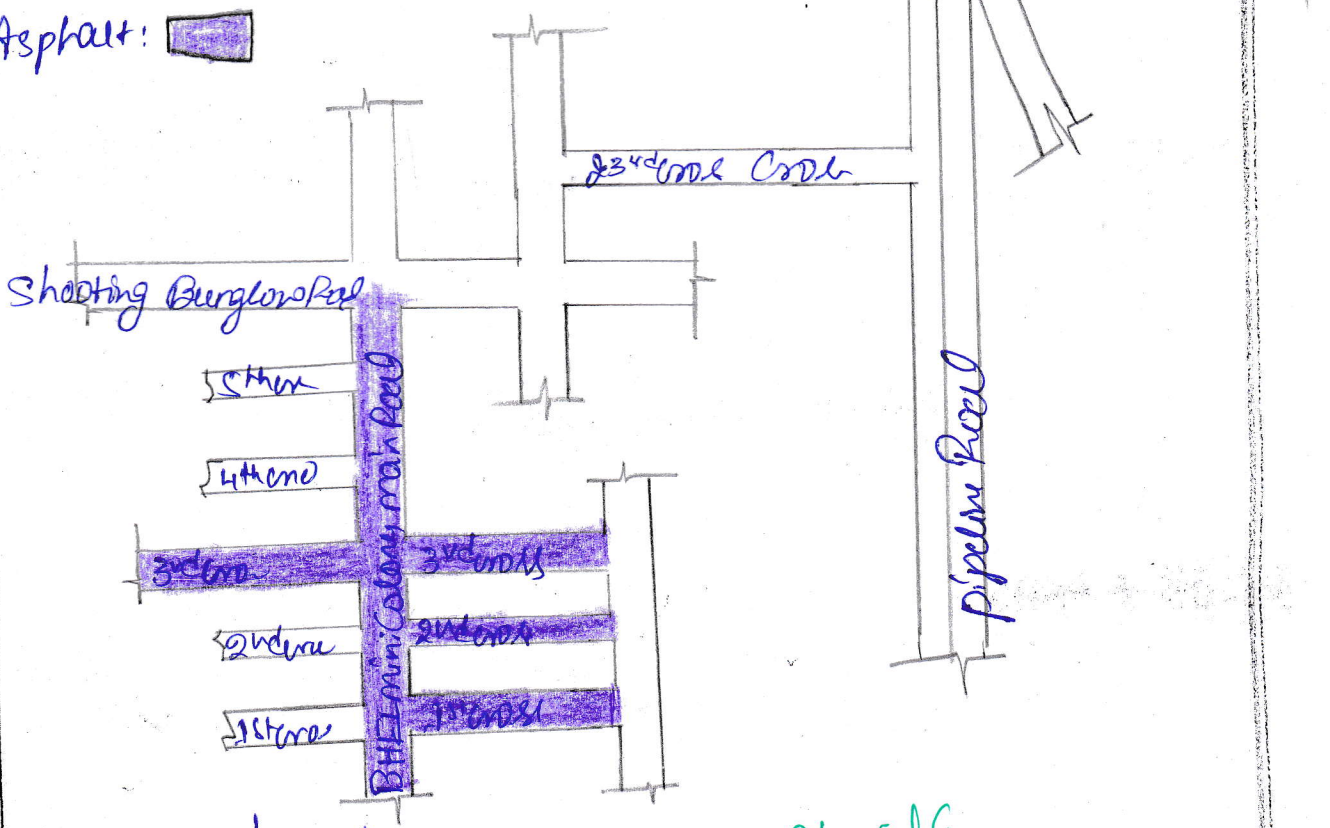
**Name of Work** Improvements of Asphalting at BHEL Mini Colony and Surrounding Area in Nallasandra Ward No-13 Shettyhalli - Sub - Division.




Typical c/s of cc Road Surface

Index

Asphalt:




Asst.Engineer
Ward No.13

Asst.Executive Engineer
Shettyhalli Sub Division, Dasarahalli Zone
BBMP Bangalore.